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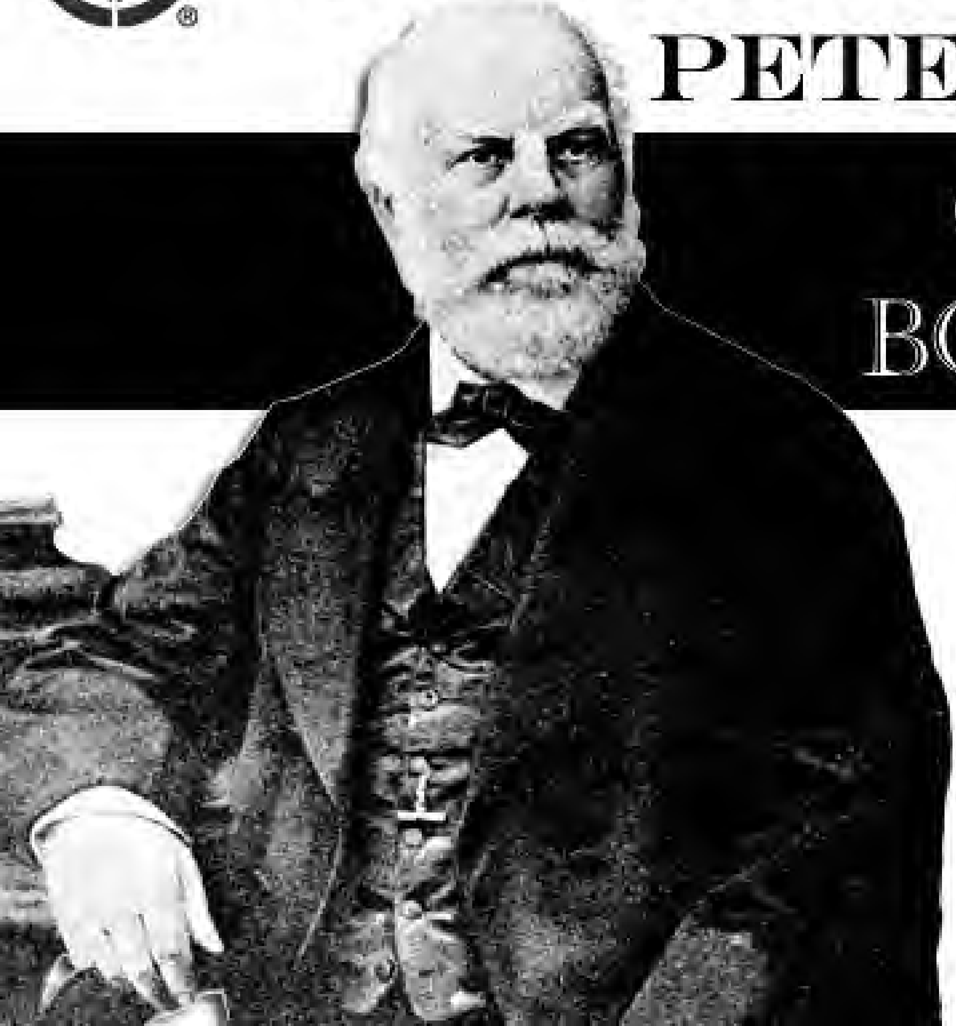

Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Euph. portulacoides
Linns Herb
seems to be obtusata
Pursh

(fide Gray?)

117-184

Stipulatae

Euphorbia
Cambridge

Polygonifoliae
semina laevia, cinerea

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Missouri
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1 42 E. ~~[illegible]~~ xylorhiza var of pilulifera p. 1
2 43 E. umbellulata p. 2
3 13 E. floribunda p. 3
~~4 40 E. [illegible] hypericifolia~~ hyper p. 5 see 51
5 16 E. puberulosa p. 6
Gregg
6 37 E. serrula p. 7 compl (59 bis)
7 1 E. ocellata p. 8.
8 48 E. exstipulata
9 46 E. florida
10 3 E. petaloidea
11 4 E. Geyeri
12 5 E. cordifolia
13 6 E. herniarioides
14 9 E. revoluta
15 2 E. polygonifolia
16 7 E. brevistyla
17 8 E. tristigmatica
18 10 E. stipulacea
19 15 E. nodosa glabella
20 25 E. ~~gymnadenia~~ E. angusta
21 12 E. ~~[illegible]~~ alsinoides
22 11 E. astyla
23 22 E. pediculifera
24 21 E. ~~[illegible]~~ stellarioides
25 27 E. ~~[illegible]~~ didynama
26 18 E. minutifolia
27 20 E. tomentella
28 19 E. cinerascens
29 38 E. villifera
30 39 E. pilosula
31 37 E. ~~pilifera~~ serrula
32 35 E. ovalifolia
33 E. saxicola
34 14 24 E. acuta
35 23 E. dilatata Torr
36 31 E. podadenia
37 32 E. maculata
38 29 E. glyptosperma (subcrenata
39 28 E. consanguinea
40 26 E. ~~subserrata~~ Californica
41 1 E. discolor var of pilulifera
42 34 E. producta grisea [illegible]
43 33 E. stictospora ([illegible]
44 30 E. humistrata
45 17 E. setiloba

36 46. E. diptera
44 47 E. pycnanthema
45 48 E. ~~cephalantha~~ 17 [illegible]
15 49 E. glabella sp? buxifolia Lam
47 50. ~~hypericoides~~ trachysperma
~~51. E. didynama~~
~~51 E. hypericifolia~~
~~51 E.~~
~~52~~ E. pilulifera
40 51. hypericifolia
41 52 densiflora
42 53. pilulifera

Anisophyllum Roeper
Tithymalus Klotz
Esula Roeper

6573

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MISSOURI BOTANICAL GARDEN

Notes to Euphorbiae of Boundary Bot.

p. 185. E. petaloidea ~~var.~~ Nuttallii is distinguished by Boissier. Cent. Euph. p. 10 under the name E. zygophylloides, no doubt correctly. ~~That~~ of his new species E. polyphylla Boiss. l.c. from Texas, coll. by Wright & Lindheimer, seems to be only a [illegible] smaller [illegible]

p. 186. E. cinerascens [flowering form of probably with narrower appendages] β. appendiculata. E. [illegible] is also to be referred to the has been described before under the name of E. melanadenia Torr. in Bot. Whipple. p. 135; E. cinerascens with them have to be ~~named~~ reduced to a ~~variety of the~~ [illegible] β. subinappendiculata

p. 187. E. inaequilatera Sonder. A ~~careful~~ close examination of the (Persoon's) original E. serpyllifolia Syn. 2.14, preserved in the De Candolle herb., ~~who~~ kindly communicated to me, proves to me that this ~~plant~~ is the type of the American form referred by me to E. inaequilatera which name must therefore be substituted. Mr. Boissier [distinctly perhaps too minutely] considering the ~~Asiatic~~ Asiatic and African form as distinct, and comprising them under the name E. sanguinea Hochstett to which E. inaequilatera is added as synonym

E. [illegible]

2.19
2 50
2 21

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1 60
2.40

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005
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0.45
1 39
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10
272

0.01
39
1
99
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145

81
10
1.46
237

146
81
87
3
44
361

53
13
73
5
3
147

91
48
49
17
205

1 16
1 25
3
1 62
406

14 99
120
87
6
312

56
24
41
121

70
102
184
63
88
507

123
4
65
129
18
339

71
23
6
6
106

15
92
6
73
180

115
8
8
22
153

103
158
93
354

41
76
4
9
70

5 24 ~~22~~ / 5 340 / 243
44
94
88
60
44
16

22 / 14,30 / 65
132
110
1 109 / 50
110
9

515 / 0.24
44
75

901 / 41
88
21

0.162 / 0.07
154

1202 / 54
110
102
88

5340 / ~~24~~ 3
44
94 / 1
88
60

6574

Jan. 1861

Euphorbia leucophylla Benth. Bot. Sulph. p. 50. The plant collected at Cape San Lucas, Lower California by Mr. Xantus, ~~Bentham's~~ original locality, perfectly agrees with Bentham's description, but ~~ought to~~ would be called more hoary & ~~canescent~~ gray than snow white; the appendages of the dark red or black glands are very unequal, as is often the case in Anisophyllum, and in no species more so than in (E. dioica HBK (E. adenoptera Bertol.-Boiss.)); the posterior ones being always the largest; in the specimens before me the posterior ~~glands~~ appendages are 1 line broad and half as long, the anterior ones scarcely more than ½ line broad, and somewhat shorter; they are never entire in these specimens, but crenate or incised, the posterior in 6-8, the anterior in 3-4 lobes. ~~Stipe of Capsule~~ Ovary and capsule together with the styles hairy, but ~~stipe glabrous~~; styles long in the ovary, distinct, ~~undivided~~ divided ~~beyond the middle~~ about 2/3; branches scarcely clavellate; — seeds oval, sharp angled ~~very~~ slightly transversely undulate, not ~~gla~~ smooth ~~on the dorsal faces~~, nearly 0.5 lines long.

6575

Jan 1861

The spec of Mr Xantus

Euphorbia polycarpa Benth. Sulph. p. 50. ~~We have~~ This is ~~here~~ probably identical with the original form ~~before~~ of this species ~~before us~~, from the same neighborhood; though the leaves are much smaller than Bentham describes them, (viz only 1-1½ and not 2-4 lines long). Mr Boissier who has examined the original plant ~~says~~ writes that it is identical with the plant collected by Parry and Schott near San Diego and Los Angeles ~~and which~~ ~~occurs~~ ~~eastward~~ ~~The plants refer~~ The specimens ~~referred~~ here by me (~~Bot.~~ Mex. Boundary p. 186) ~~to this~~ undoubtedly belong here as also *E. ocellata* Nutt. in Herb. Hook from San Diego, Coulter's No 1448 in Hb. A Gray, and other specimens, collected by Dr Newberry in the Mohave desert and near Los Angeles. ~~Mr~~ Boissier excepts and perhaps justly so, ~~[illegible]~~ Wright's No 1854 from the San Pedro in Arizona which he distinguishes under the name as *E. micromera* in DC. Prod. ined. by the entire absence of very small involucre (~~[illegible]~~ 0.2 lines) appendages on the yellow (not dark red) glands and by the (~~sub~~globose stigmas) very short styles terminated by. The length of the styles in these Euphorbiae is, however, not a very ~~[illegible]~~ permanent character, of which ~~and~~ this specimen from San Lucas and some other ~~[illegible]~~ from the Colorado desert furnishes a striking example, having sub-erect styles ~~[illegible]~~ shorter than the ovary (only about ⅓ line long) while ~~all~~ most of the forms from the State of California have ~~all~~ elongated styles with divaricate cleavely branches, twice as long as the ovary; I I have not ~~been~~ able to compare Bentham's original specimens ~~and can not say how that is~~ ~~The forms of the~~ ~~the form of the~~ My remarks about the variability of the plant ~~[illegible] in true~~, may be extended to the form of the leaves, which ~~they~~ are usually oval, oblong, or oblong linear, and obtuse at base, ~~[illegible]~~ in specimens ~~collected~~ by Dr Newberry at Laguna, ~~are~~ I find them ~~[illegible]~~ almost orbicular and deeply cordate at the base; that only stem and leaves are glabrous or hairy, but also the ovary is in some of Emory's and Bigelow's specimens densely ~~hairy~~ puberulent.

~~The seeds in all~~ The appendages glands are always deep purple, or almost black, the appendages are white or rose colored, (usually broad, ~~and~~ more or less entire) but sometimes also extremely narrow, especially in the forms ~~east of~~ from the eastern slope of the California Mts and from the Colorado river.

The seeds are about 0.4 l. long, sharp angled with the sides almost smooth or more or less distinctly undulate.

~~The styles are variable in length and~~

—

E. hypericifolia L. var. communis Engel. in Bot. Bound. p. 188. E. Preslii Gussone Fl. Sicul. I. 531 Boiss. in DC. Prod. ined. Notwithstanding Boissier's weighty authority I can not convince myself that the ~~form notes~~ Linnean E. hypericifolia with smaller flowers, smaller capsules and smaller and paler seeds is distinct from our common northern var. communis, which has become naturalized in Italy and has been known there under different ~~a good many~~ names (E. androsaemifolia Presl, E. trinervis Bertol. and E. Preslii Gussone). Nor can I distinguish E. lasiocarpa Kl. from the West Indies and S. America from E. hypericifolia. Intermediate forms unite all these so called species.

—

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Jan. 1861

~~108~~) Euph. setiloba Eng. in Bot. Williamson, Pac. R. Rep. V. pag. 364. Identical with the plant from the lower Colorado. Root thick, but evidently annual; many stems or branches a few inches to a span long ~~from~~ almost verticillate from the very base, ~~the same as~~ ~~in other annual arrangement~~ an arrangement which is very striking in the Californian E. polycarpa and in the ~~European~~ mediterranean E. Chamaesyce, but not so distinct in most other ~~Ana~~ Anisophyllae. ~~Lower~~ leaves coarsely serrate, upper ones entire; in the Colorado plant all nearly entire; involucre minute, scarcely $\frac{1}{3}$ line long; glands perpendicular, not horizontal, ~~dark~~ red, with conspicuous white multifid appendages; ~~Male~~ flowers 5–8, in the ~~Californian~~ Colorado ~~plant evidently~~ original specimens scarcely ever more than 3; ovary and ~~capsule~~ vesicular capsule short hairy (not hispid); styles ~~[illegible]~~ nearly $\frac{1}{4}$ line long & branches remarkably clubshaped, — seeds scarcely 0.4 line long, sharp angled, transversely rugose. Closely allied to E. polycarpa, but distinguished by the smaller #

Dr Newberry collected the same species in the Mohave country

Cape San Lucas Xantus leg. 1860 No 108
Lower California

in the involucre, the incisely lobed appendages on the perpendicular glands, and the more acute and much more rugose seeds.

6577

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Euphorbiae stipulatae, Anisophyllum Roep.

* seminibus laevibus (cinereis s. albidis e rubello cinereis)

† foliis integris, glaberrimis

1. Euphorbia gracillima n. sp. annua, erecto-patula, glabra; stipulis e basi lata subulatis, distinctis, ~~s.~~ entire integris, posticis fissis, deciduis; foliis linearibus integris, obtusis mucronatis, basi subobliqua acutis, breviter petiolatis; pedunculis petiolos longe superantibus in dichotomiis ramulorum singulis et (raro pseudo-axillaribus)) demum ad ramulorum alternantium apicem laxe cymosis; appendicibus involucri petaloideis ovatis subcrenatis inaequalibus; capsula obtuse angulata; Seminibus ovato subglobosis, vix angulatis cinereis, maculatis

Sandy places, rocks, from Ind~~ependence~~, near the Brazos to the Pierdenales and Llano, Texas. fl. June to Oct. 6 — E. arenaria Nutt non Kunth. — seeds almost globose, ~~about~~ 0.6–0.7 lines long; almost but not entirely smooth, with darker slightly impressed spots. — The plant is often 2 or 2½ feet high — forming bushes of 6 feet in circumference — Leaves 6–12 lines long ¼ to ⅓ of a line wide. — Lobes of involucre ciliate — Petaloid appendages of the green yellow or red glands mostly large and conspicuous, white, rarely reddish; styles as long as the ovary, ~~divided~~ bifid to the middle. Pedicells in vigorous specimens half as long as the leaves, finally shorter. Stipules on the anterior ~~opp~~ side entire on the posterior narrower and more or less setaceously incised

2. Euphorbia polygonifolia L. annua, glabra, patula s. prostrata; stipulis subintegris s. plerumque setaceo-fissis; foliis breviter petiolatis oblongo-linearibus, integris, basi obliqua obtusis s. subcordatis, obtusiusculis, mucronatis; pedunculis petiolos aequantibus in dichotomiis ramulorum singulis et ad ramulorum aequalium oppositorum apicem ~~conjunctalosis~~ cymosis; glandulis involucri minutis, ~~non~~ ex appendiculatis; capsula obtuse angulata; seminibus ovatis, vix angulatis, e cinereo rubellis.

Sandy shores of the great lakes and the atlantic coast. — Leaves 4 to 6 or 8 lines long 1–2 l. wide, lobes of the involucre lanceolate, entire longer than the very small glands; Styles shorter than the ovary, bifid almost to the base; seeds the largest of any north american species of this section ~~always more than a line long~~ about 1 line long; angles obsolete.

3. Euphorbia Geyeri E. in Lindh. Pl. tex. (annua glabra) Erecto-patula, s. procumbens stipulis plus minus setaceo-fissis s. multifidis; foliis lineari-oblongis s. ovato oblongis, basi plus minus obliqua acutiusculis, s. obtusis, apice obtusis s. retusis, mucronulatis; pedunculis petiolos aequantibus, in dichotomia ramulorum singulis, raro pseudo-axillaribus, demum ad apices ramulorum folioso-corymbulosis; appendicibus involucri petaloideis orbiculatis s. ovato-orbiculatis; capsula obtuse s. acutiuscule angulata, seminibus ovatis obtuse 3-angulatis cinereis s. rubello-cinereis, ~~maculatis~~

α. florida caule ~~patulo~~-erecto-patulo, foliis ~~linearibus~~ lineari-oblongis basi acutiusculis, i~~[illegible]~~i ~~glandulis~~ appendicibus ~~majoribus~~ involucro subaequantibus capsula obtusangula, seminibus majoribus ~~maculatis~~

β. inconspicua procumbens, foliis ovato-oblongis basi obtusis s. subcordatis, appendicibus involucro multo ~~minoribus~~ brevioribus, capsula angulis acutiusculis, seminibus majoribus maculatis

γ. microsperma procumbens; foliis ovato-oblongis basi obtusis s. subcordatis, appendicibus involucro multo brevioribus, capsulae angulis acutiusculis, seminibus minoribus immaculatis

Var α in the western Prairies from Council grove and the upper Missouri to New Mexico (Geyer, Fremont, Fendler (792. 793) Wislizenus (464)), a larger plant than the others with very conspicuous ~~involucres~~ petaloid appendages; leaves 6-8 lines long 1 to 2 wide; seeds 0,8 l. long. — Styles as long or longer than the ovary, bifid almost to the base. — β. On the Pierdenales, in Texas (Lindheimer) Procumbent with shorter leaves, 3-4 lines long and 2 wide; seeds not distinguishable from the first form; petaloid appendages white or reddish, small; styles erect very short, bifid almost to the base. — γ. Beardstown Illinois on sandy soil; procumbent, smaller than the last, but similar; leaves same shape and size — flowers also. but styles a little longer, spreading and bifid only at apex or to the middle; seed not spotted, smaller, ~~½~~ ~~not much more than~~ only a little more than 0,6 l. long.

4. Euphorbia cordifolia Ell. annua glabra prostrata, stipulis setaceo multifidis; foliis orbiculato-ovatis plus minus ~~basi~~ ~~sub~~cordatis; pedunculis petiolos breves multo superantibus, in dichotomia ramulorum singulis; ~~appendicibus~~ involucri petaloideis ~~transverse~~ ~~ovato~~ sub-orbiculatis, involucrum ipsum aequantibus; capsula acutangula, seminibus ovatis e cinereis ~~rubellis~~, obtuse angulatis.

Alexandria La & Hale, west of the Brazos, Texas, Lindheimer — One of the largest of the prostrate Euphorbiae; one to two feet spreading; leaves 4-5 lines long about 3 l. wide — Styles as large as ovary or larger, bifid almost to the base; seeds 0.6 l. long, with obtuse but not obsolete angles.

5. Euphorbia herniarioides Nutt annua, glabra, prostrata, connatis s. plerumque stipulis bifidis, s. integris supra connatis triangularibus infra margine setaceo fissis, foliis ovato-orbiculatis, basi obtusis s. subcordatis; pedunculis petiolos multo superantibus pseudo-axillaribus, in glomerulis densis lateralibus foliaceis aggregatis; appendicibus involucri petaloideis s. ~~minutis~~ crenulatis ~~s. carentibus~~ s. carentibus, capsula acutangulata s. obtusius, seminibus ovatis, e cinereo rubellis, obtuse angulatis. Styli profunde bifidis

* β imbricata.

Banks of the Mississippi from St Louis to N Orleans, especially in heavy black stiff soil, but also on rocky heights, — On the Arkansas & tributaries in gravelly riverbanks, on the Upper Missouri and the western Prairies (Geyer & Fendler 799 & 802) Texas (Lindheimer) and Mexico (Gregg ~~264 &~~ 457 a) (a very glaucous variety) var. β. δ

One of the smallest leaved forms, often spreading a foot or more; Leaves 1½ - 2½ l. long and a little less wide, ovate, oblong, rarely cordate at base, more or less glaucous; — Petaloid appendages wanting in some specimens from the banks of the Mississippi; mostly present, but very inconspicuous, (transverse white or reddish) crenate; angles of capsule ~~obtuse~~ very acute, of the triangular seed rather obtuse but not obsolete. — ~~Seeds~~ among the smallest, ~~scarcely~~ not half a line long about 0.45. Styles about the length of the ovary, deeply divided, mostly almost to the base. — A ~~form~~ from ~~Mexico~~ the Nazas, Mexico (Gregg 457.a) is particularly glaucous and has larger seeds

6578

var β. has vide appendix ♂

~~and another from Monterey has the stipules connate on both sides, fringed at the apex — leaves almost of the first imbricate crowded; seeds narrow but more elongated approaching in appearance the next species.~~

6. Euphorbia stipulata n. sp. perennis glabra procumbens; stipulis connatis ovatis subintegris membranaceis; foliis carnosis ovato-orbiculatis, basi obliqua obtusis s. subcordatis, margine ~~[illegible] cartilagineo albido~~ integro s. brevissime crenulatis; pedunculis petiolos superantibus, pseudo~~extra~~axillaribus demum in glomerulos foliaceos laterales aggregatis; glandulis appendicibus involucri ~~semiplenis~~ transverse ovatis integris involucro hemisphaerico dimidio aequantibus, — capsula acutangula, seminibus oblongo linearibus rubellis acute 4-angulatis.

Valley of the Nazas and dry plains or valley near San Pablo and Chihuahua, April (begin to flower) Dr Gregg. 520 & 457.6.

Root thick, ligneous, heavy white — Very glaucous; stipules especially in the younger specimens very conspicuous, large, white; leaves 1–3 lines long, a little less wide,× flowers large in comparison; glands large, very dark, surrounded by the conspicuous white petaloid margin. — Styles as long ~~or~~ longer than the ovary, bifid almost to the base

× in the specimens from Chihuahua larger and ~~with~~ entire ~~margin~~, in those from the Nazas their smaller and more crowded, and with margin is white, apparently cartilaginous and slightly crenulate.

Seeds more red and darker than most others of this section; more acutely angled and more linear than any mentioned before — between 0,5 and ~~about~~ 0,6 l. long.

†† foliis plus minus serratis s. crenatis.

§. caule glaberrimo

7. Euphorbia ~~Pe~~ Peplis Lin annua, glabra, ramosa procumbens, stipulis setaceis, ~~fissis s. multifidis~~ plus minus ~~ad basin~~ divisis ~~s.~~ s. fissis, foliis ovatis subfalcatis, ~~latere~~ inferiore ad basin productis, profunde cordatis et plus minus dentatis (s. integriusculis); pedunculis petiolos ~~aequantibus~~ s. superantibus, in dichotomia ramulorum singulis, appendicibus glandularum involucri vix ullis s. minimis ~~vix ullis~~, ~~plerumque~~ crenulatis, virescentibus; capsula

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Euphorb. pag 3.

E. herniarioides Nutt

β. imbricata ramis prostratis, radiantibus, ramulis adscendentibus; foliis crassioribus, subcoriaceis, approximatis, imbricatis; stipulis connatis; involucris (subsingulis / sub apice ramulorum), ~~magis~~ appendiculis majoribus, truncatis, crenatis; seminibus linearibus laevibus s. levissime transverse tuberculatis.

♂ Rocky soil, New Braunfels (291.c) ~~[illegible]~~, Llano, Texas Lindheim. 1846 & 1848. and Monterey, Mexico, Gregg No. 214. ♁ Has the appearance of some Lycopodium" (Lindh.); Leaves firm, very small 1–1½ l. long; Seeds more linear, but variable, in some forms smooth, in others slightly but distinctly tuberculated! Still it can not be separated from E. herniarioides, as there are intermediate forms. — They prove that the seed of the same species may be smooth or slightly uneven — showing that even this Character must be taken in consideration very cautiously.

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obtuse angula, seminibus magnis, ovatis, ~~a~~angulis obsoletis, e cinereo-rubellis.

South coast of France (my specimens). — Very fleshy; leaves more oblique than any mentioned before, lower part much produced, giving the whole leaf a falcate shape; more or less serrate on this production 4–7 l. long, 2–3 or 4 l. wide; ; Glands of involucre 4, small, transverse, with very small mostly crenulate green appendage; — styles very short divided almost to the base. Seeds the largest of any of this section, about 1/4 l. long, acute above, rounded at base, whitish or pale (grayish reddish). The female calyx is remarkable consisting of 3 distinct segments linear, ~~truncate~~, crenate or incised at the truncate square end. —

8. Euph

§ §. caule piloso.

8. Euphorbia ~~[illegible]~~ Fendleri n. sp. annua, caule patentim piloso, prostrato, stipulis lanceolatis fimbriatis; foliis oblongo-ovatis, basi obliqua obtusis, acute serratis, supra glabris subtus parce pilosis; pedunculis (petiolo longioribus) in dichotomiis ramulorum singulis s. pseudoaxillaribus et demum in glomerulos laterales congestis; ~~a~~appendicibus involucri parvis s. minutis, albidis s. rubellis; capsula acutius angulata, ~~glabra~~, seminibus ovatis, acute 4 angulatis, albidis.

Santa Fe, valleys between arid hills, Fendler. 796 & 804. — coll. in June & July. — A very remarkable species, the only American with smooth seeds and dentate leaves or hairy stems; one specimen only 6 inches in diameter; leaves 3–4 l. long and 1 or 1/2 wide — obtuse, sometimes with a linear brown spot in the centre; flowers small, styles shorter than the ovary, divided below the middle; capsules large, almost acute angled; seeds ~~with~~ very slightly rugulose; ought therefore perhaps belong to the second section. Distinguished by the 3 acute angles, with ~~one~~ (the ventral) one more obtuse; seed ~~about~~ 0,8 long

* * Seminibus tuberculatis, rugosis, s. exsculptis.

† foliis integris

§. glaberrimae

9. Euphorbia revoluta n. sp. annua, glabra erecto-patula; stipulis subulatis sub integris (~~rarius setaceo~~-fissis); foliis linearibus, basi subaequali in petiolum longiusculum angustatis, margine integro revolutis, ~~apice~~ obtusis, pedunculis petiolos aequantibus, in dichotomia ramulorum aequalium singulis; ~~appendi~~ glandulis involucri vix s. non appendiculatis; capsula acute angulata, seminibus oblongo-linearibus, acute 4-angulatis, transverse foveolato rugosis, cinereo rubellis.

In the Mountains between Santa Fe and the Moro river generally about the roots of trees, ~~in moss,~~ and under shrubs. — August Fendler 789. — A slender & delicate species, about 3 ~~feet~~ inches high, much branched, leaves 6-9 l. long ½ l. wide, apparently dark green, the lower side reddish; — red glands of the involucre with a very small margin or one or two teeth or without one. Styles nearly as long as the ~~capsule~~ ovary, ~~divided~~ bilobed only at the point, angles of capsule dark, acute; angles of seed very acute, sides concave, with transverse wrinkles and grooves — ~~seed about~~ not quite 0,6 l. long slender.

10. Euphorbia ~~saxi~~ rupicola n. sp. perennis, multicaulis erecto-patula, ~~mox~~ s. diffusa, stipulis ~~di~~subulatis subintegris, distinctis s. raro connatis; foliis (subcoriaceis) e basi obliqua obtusa, rarius cordata, lanceolatis s. plerumque ovatis, ~~triangularibus~~ s. suborbiculatis acutis s. obtusis; pedunculis petiolos superantibus, in dichotomia ramulorum singulis, demum ad ramulorum apices subcymulosis; glandulis involucri non appendiculatis, s. rariter appendicibus virescentibus triangularibus s. truncatis instructis; capsula acute angulata; seminibus ovatis, 4 angulatis, transverse foveolato-rugosis, punctatisque, albidis

α. texensis, foliis latioribus, saepe triangularibus s. inferioribus reniformibus, seminibus brevioribus subcubicis

β. neo-mexicana foliis angustioribus, ovatis s. lanceolatis, basi ~~non~~ rarissime cordatis; seminibus longioribus angustioribus.

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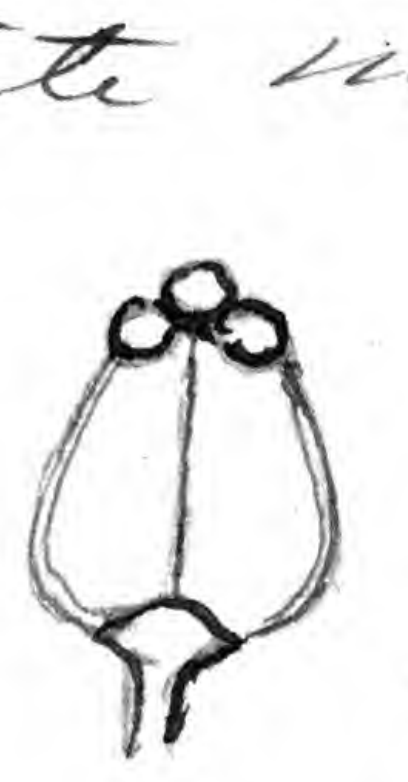
On rocky soil, &c. ~~Near~~ Braunfels Texas Lindheimer 164 & 290 in crevices of a calcareous rock, fl. June & July — β. On rocky sterile hill sides near Santa Fe, ~~fl.~~ May – July Fendler 800 — and on the ~~Upper~~ North fork of the Platte, Dr Mersch. — A great many slender stems 3–4 inches high from a thick ligneous root; Leaves ~~variable~~, of a thick, firm texture, variable in shape, 2½–4 lines long, 1–4 lines wide, — glands of the involucre only in a few specimens from Santa Fe with greenish appendages, which are triangular and acute or truncate ~~and~~ crenulate. — Styles mostly as long as the ovary, divided to the middle, seeds with rather acute angles and concave sides, between 0.7 and 0.8 l. long those from Texas much thicker than those from N. Mexico, but ~~rather~~ shorter. ~~the first 0.75 the second 0.8 l. long~~

11. Euphorbia ~~Greggii~~ astyla n. sp. perennis multicaulis, erecto-patula, stipulis connatis, ~~latis truncatis~~ subquadratis apice fimbriatis; foliis coriaceis e basi profunde cordata subobliqua reniformibus margine cartilagineo subinde leviter crenulatis; pedunculis petiolos superantibus, in dichotomia ramulorum singulis; glandulis involucri hemisphaerici latis, late appendiculato-marginatis; capsula obtusius angulata, seminibus (acute linearibus ~~tr~~ angulatis, ~~truncatis~~ ~~angulis crenatis~~, transverse foveolato rugosis. — angulis crenatis

Valley of the Nazas, ~~April~~, Dr Gregg; — May stems 2–3 inches high from a ~~stout~~ perpendicular ligneous rhizoma; glaucous almost coriaceous leaves 2 lines long and wide; involucre distinguished by the hemispherical ~~shape~~, and the large dark glands with white crenulate margin styles ~~not divided~~ much shorter than the ovary, entire  not divided with 3 large orbicular stigmata; seeds 0.7 ~~nearly 0.8~~
0.7 l. long, linear with concave sides and very ~~sharp~~ ~~prominent~~ crenulate angles. — Near E. stipulata glaucous leaves similar, involucre not to be distinguished, but styles, and seeds very distinct.

§§ canescentes.

12 E. cinerascens n. sp. perennis ~~multicaulis~~ caulibus puberulis, procumbentibus, stipulis minutis triangularibus s. subulatis deciduis; foliis e basi obliqua truncata triangularibus s. ovatis, obtusiusculis, supra glabris subtus cinereo pubescentibus pedunculis petiolos aequantibus, pseudoaxillaribus demum in glomerulos laterales congestis; ~~glandulis~~ involucri puberuli (atrorubentibus) nudis s. anguste (rubro-) marginatis; capsula puberula acute angulata; seminibus ovatis, ~~acutis~~ angustatis, acute 4-angulatis leviter impresso-punctatis, albidis.

On the ramparts of Bishops Hill, Monterey. Febr. Dr Gregg No. 215. — A small procumbent species; leaves 1/2-2 l. long and almost as wide; whole plant cinereous, with short appressed pubescence except the upper surface of leaves, which is smooth; glandulae of involucre ~~red~~ dark with or without small red appendages. Styles divided to the middle as large as ovary, also red. Seeds ~~whitish~~, sharp angled, 0,6 l. long, very pointed above, with ~~rough~~ uneven surface and some impressed dots. —

13. E. cinerea n. sp. perennis, tota ~~incana~~ canescens, erecto patula, stipulis subulatis; foliis a basi obliqua truncata inferioribus triangulatis, superioribus linearibus, falcatis omnibus margine revolutis, obtusis; pedunculis petiolos brevissimos superantibus, pseudoaxillaribus singulis; glandulis involucri canescentis (~~flavescentibus~~) nudis s. anguste crenato-marginatis capsula canescente obtuse angulata; seminibus ovatis angustatis acute 4 angulis, ~~lateribus medio acutis~~ leviter tuberculatis albidis.

Sandy prairies near the Cimarron River, August. Fendler 794. — A very stout erect little perennial 3 inches high, leaves thick, coriaceous, 3-4 l. long, ~~upper~~ ones 3-3 1/2 l. ~~upp~~ hardly one l. wide — ~~Involucra single, not~~ Glandulae of involucre yellow thick almost orbicular narrow margin also ~~yellowish~~; styles rather shorter than the ovary divided to the middle seeds nearly 0,8 long, slender angles very acute, sides concave, elevated, almost carinate in the middle and slightly and irregularly tuberculate

14. E. ~~saxi~~ ~~rupi~~fraga angusta n. sp. perennis, tota ~~canescens, erecta~~, strigoso-pubescens, erecta, ramis erectis, stipulis subulatis strictis minutis deciduis; foliis linearibus basi subaequali et apice acutis, supra demum glabratis; ~~suberectis~~ pedunculis petiolos brevissimos superantibus, pseudoaxillaribus, singulis; ~~glandulis~~ appendicibus involucri quadratis (bifidis s. crenatis) s. lobatis, erectis; capsula acute nascente angulata; seminibus ovato-~~globosis~~ cubicis, acute angulatis, transverse rugoso-foveolatis.

On the Cibolo and Sabinas (Texas) in crevices of limestone rocks; June & July. — Lindheimer 429. — ~~This~~ species is in many respects distinct from all other stipulate Euphorbiae known to me, especially by its strictly erect growth, and even erect (not as in all other species patulous or horizontal) leaves, and erect white appendages of the glands. — ~~From~~ a thick long black (inside white) root spring several stout stems, about 8–12 inches high; stipules (soon disappearing, on the young shoots consisting of indistinct dark points); leaves linear, lower ones shorter and a little wider, most of them one half to 1 inch long, ½–1 line wide, ~~stiff~~ coriaceous not revolute, on remarkably short petioles; — ~~internodes~~ peduncles always single as in the foregoing species, and ~~never~~ forming glomerules. — styles erect, short, bilobed above the middle. Seeds strongly rugose, very thick, ~~between~~ ~~0.7~~ near 0.8 l. long, but appear twice as large as those of last species, because much thicker

†† foliis crenatis s. serratis

§. glaberrimae

15. E. Chapmani (annua ?) glabra, prostrata, stipulis (inferne connatis) triangularibus, ~~fimbriatis~~ laceris; foliis oblongulato-obovatis, basi obliqua (acutiusculis) s. obtusis [illegible] ~~venosis~~, apice ~~rotundatis~~ denticulatis seu ~~crenatis~~; pedunculis petiolos aequantibus in dichotomia ramulorum inaequalium singulis, ~~s. pseudo-axillaribus~~ demum laxe glomerulatis; appendicibus involucri ~~integris~~ parvis inaequalibus s. crenulatis; capsula acute angulata; seminibus ovatis ~~obtuse~~ acute 4 angulatis, laevibus ~~tuberculatis~~ (nitidis) sed subtile transversim rugosis

Florida — Dr Chapman. — Probably annual, foliis

for want of root in my specimen can not be ascertained; prostrate branches about a foot long; leaves 3–4 l. long, 2–3 l. wide; flowers single or in loose glomerules; appendage of involucral glands whitish, transverse oval, much smaller than involucre; styles as long as ovary, bifid below the middle, stigma clavellate; seeds shorter thick with rather acute angles, ~~but not~~ and ~~flat~~ sides ~~convex, but plain surfaces~~ very slightly tuberculate ~~not quite~~ 0,5 l. long. Distinguished from the nearly related E. humistrata by its somewhat larger seeds, looser inflorescence, thinner leaves, which are acutish at base, not obtuse or subcordate, and much shorter, and by its entire smoothness.

16. Euphorbia notata n. sp. annua, glabra, prostrata; stipulis subulatis setaceo-fimbriatis; foliis obovato-oblongis, basi valde obliqua acutiusculis s. obtusis, acute serratis; pedunculis petiolos aequantibus, in dichotomia ramulorum inaequalium singulis, demum ~~[illegible]~~ glomerulatis; appendicibus involucri truncatis integris s. crenulatis, inconspicuis; capsula acute-angulata, seminibus lineari oblongis, 4angulatis, punctato-exsculptis, cinereis.

Sandy banks of creeks (Santa Fe, and on the Rio Grande) ~~Febr May~~ – July – Fendler 795. — A spreading annual, 6–12 inches in ~~diameter~~ long; leaves 3–4 lines long, 1–3 l. wide, ~~frequently~~ mostly with a large lanceolate dark purple spot; appendages of involucre often very small, transverse, irregularly crenate or lobed, white or reddish. Styles almost as long as ovary, divided to the middle; seeds slender, between ovate & linear, with acute angles and ~~flat~~ slightly concave sides, punctate, rarely more or less rugose, 0,6 l. long.

1. NB. With these specimens was one with green, not spotted leaves, setaceously multifid stipules, and very short styles; seeds not distinguishable from those ~~of~~ of the common form.

2. NB. Another form, from the gravelly banks of the Cimarron is erecto-patula, foliis lineari-oblongis, sub apice serratis, submaculatis stipulis subulatis; stylis ovarii aequantibus, seminibus rugosis – paulo minoribus (0.5–0.6 l. long). —

17. Euphorbia concolor annua, glabra, prostrata, stipulis subulatis, setaceo fimbriatis s. fissis; foliis oblongis s. lineari-oblongis, basi maxime inaequali, apiceque crenato-serrulato obtusis; pedunculis petiolos aequantibus, in dichotomia ramulorum inaequalium singulis, demum ~~[illegible]~~ glomeratis; appendicibus involucri ~~integris~~ truncatis plus minus crenulatis, parvis; capsula acute angulata; seminibus acute 4-angulatis, transversim foveolato-rugosis.

Sandy places on the upper Missouri near Fort Pierre (Geyer). — Leaves 3–5 l. long and 1–2 l. wide, seeds ~~near~~ not quite 0.5 l. long, angles often crenulate; styles much shorter than ovary bilobed to the middle. —

1. NB. – A specimen coll. by Lindheimer on the Llano in western Texas, resembles this; stipules the same, leaves rather smaller, less oblique at base, more acutely serrate, styles the same; seeds smaller, hardly more than 0.4 l. long but thick, with strong transverse ~~fo~~ grooves and crenulate ridges. —

18. Euphorbia angusta. annua, glabra, erecto-patula, rarius sub-procumbens; stipulis subulato-setaceis, integris s. setaceo-fimbriatis; foliis e basi obliqua obtusa s. acutiuscula oblongo linearibus s. linearibus, obtusis s. acutis, versus apicem acute serratis; pedunculis petiolos vix superantibus, pseudoaxillaribus, demum in glomerulos ~~glomeratis~~ laterales congestis; glandulis involucri appendiculo petaloideo ~~[illegible] petaloidis~~ brevi emarginato instructis; capsula acute angulata; seminibus (cinereis s. e cinereo rubellis) lineari-oblongis acute 4-angulis transverse ~~foveolato~~ rugulosis s. ~~et~~ foveolato-punctatis.

On sandy or gravelly places New Mexico (Santa Fe & San Miguel, and on the Rio Grande,) Fendler 791 & 803 — Upper Missouri near Fort Pierre, Geyer. — Habitus much like No 9 E. revoluta; easily distinguished by the serrate leaves etc. Stems 3 to 6 inches high, leaves 3–6 l. long and ½ ~~1~~ l. wide. Appendages of involucre white or reddish, very similar to those in the 2 foregoing species; Styles ~~very~~ shorter than the ovary, divided almost to the base; seeds 0.6–0.7 l. long,

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The Missouri plant has the largest seeds; the specimens from the Rio Grande are almost procumbent, slender, ~~with~~ leaves acute at base; glomerules rather ~~dense~~ compact.

19. b. E. ~~gymnulifera~~ densiflora vide pag 18.

§ §. Pilosae s. pubescentes

a. Seminibus ~~tuberculatis~~ saccharato verruculosis

20 Euphorbia ~~longipila n.~~ villifera Scheele sp. annua ~~erecto-patula~~, undique patentim pilosa, erecto-patula; stipulis subulatis, s. setaceis integris s. fimbriatis; foliis e basi valde obliqua subcordata ovato-triangularibus, obtusis, leviter crenatis s. subintegris; pedunculis petiolos superantibus in dichotomia ramulorum inaequalium ~~singulis~~, demum ad ramulorum apices laxe glomerulosis, ~~pseudoaxillaribus~~, ~~rare subglomeratis~~; appendicibus involucri ovatis, orbiculatis ~~ve~~, sub integris; capsula glabra acute ime ~~alata~~ -angulata; seminibus ovatis 4 angulatis, saccharato verrucosis et ~~levissime~~ tuberculato-rugulosis.

Dry open woods, especially Cedar woods, New Braunfels Texas Aug. & Sept. — Erect with ~~filiform~~ weak branches; one form ~~with~~ thickly covered with long white ~~hair~~, leaves almost entire, another somewhat less hairy, with ~~more~~ crenate leaves, stems 6–10 inches high; leaves 3–4 l. long 2–3 l. wide; ovaries almost 3-alate, styles as long or much shorter than ovary, bifid to the middle; seeds thick, oval, almost obtuse on both ends, a little more than 0,5 l. long.

21. Euphorbia humistrata n. sp. annua, caule 2-~~lineato~~ fariam ~~appressa~~ pubescente s. glabriusculo, ~~prostrata~~ decumbente s. rarius adscendente; stipulis subulatis, ~~fimbriatis~~, distinctis s. rarius plus minus connatis; foliis e basi valde obliqua obtusa s. subcordata ~~elliptico~~ oblongis, obtusis, rarius acutius culis versus apicem ~~crenatis~~ minute serrulatis, (~~rarius~~ s. subintegris) subtus sparsim pilosis s. glabriusculis; pedunculis petiolos ~~aequantibus s. iis~~ subbrevioribus, pseudo-axillaribus, demum in glomerulos ~~laterales~~ congestis; appendicibus involucelli dorso fissi orbiculatis s. truncatis integris s. emarginatis; capsula acute angulata plus minus pubescente; seminibus ovatis, 4 angulatis, saccharato-verrucosis.

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Banks of the Mississippi & Ohio in sandy open places or heavy fertile shady spots E. & Short. — fl. June – Octob. — One of the largest of the prostrate Euphorbiae; sometimes branches 15 to 20 inches long; pubescence of branches in two lines, sometimes almost disappearing; leaves 4–9 ~~l. long~~ mostly 5–6 l. long ~~and~~ more than ~~half~~ as wide, often almost glabrous or with ~~hairy~~ hairy petioles and a few hairs on the lower surface; sometimes with brown spot in the centre — stipulae below on the lower side of ~~the~~ stem ~~less~~ more or less ~~sometimes~~ & sometimes above distinct; ~~Ovaries~~ Involucres slit below ~~the~~ middle on the back side (that side which is turned to the ground); ~~gland~~ appendages of the glands irregular and often unequal, mostly reddish or white; styles fully as long or longer than ovary, bifid to the middle, capsule with acute angles, always more or less hairy; seeds of the smallest, only 0.4 l. long, rather thick, ~~with~~ more or less tuberculate with very small tubercles; the specimen from Ohio has very rough, a cultivated one from Germany (Adonis Seed) almost smooth seed.
Near E. Chapmani, No. 15. which see.

b. Seminibus ~~transversim~~ transverse rugosis s. foveolato-exsculptis

α. pallidis

22. Euphorbia Chamaesyce Lin. annua, canescens, pilosa s. glabra, prostrata, stipulis subulatis, integris s. setaceo-fissis; foliis e basi valde obliqua truncata, saepius subcordata orbiculato-ovatis, obtusis s. emarginatis, margine leviter crenatis s. serratis; pedunculis petiolos aequantibus pseudo-axillaribus, demum plus minus glomeratis; glandulis ~~appendiculis~~ involucri margine petaloideo angusto s. ~~latiore~~ truncato integro s. saepius crenato instructis; capsula glabra s. pilosa, obtuse angulata; seminibus ovatis acute angulatis plus minus tuberculato-rugosis.

α. Glaberrima (stipulis ~~subintegris~~ setaceo-fissis), foliis crenulatis, caule et capsulisque ~~glaberri~~mis; appendiculis involucri minutis ~~seminibus rugosissimis~~

β. canescens, dense ~~canescenti~~ pilosis, foliis crenulatis caule et capsulis, stipulis ~~subintegris~~ fissis, appendiculis involucri parvis, ~~seminibus rugosissimis~~

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γ. massiliensis foliis acute serratis, caule et capsulis sparsim ~~dense canescenti~~ pilosis; stipulis subintegris; appendicibus involucri majoribus, crenatis, ~~seminibus minus rugosis~~.

Coasts of the Mediterranean; α & γ. β. from the Sierra nevada in Spain. — I can not find any very distinct ~~characters~~ characters to separate the different forms; between α & β intermediate forms are common, in fact the most common form of the plant. var γ. I have from Marseilles and Malta. — Prostrate, commonly from a few inches to a foot long; leaves 2–3 l. long and 1½–2 or 2½ wide; seeds from 0,5 to 0.6 long, thick, obtuse, of a whitish colour.

23. Euphorbia maculata Lin. Torr. annua, ~~caule~~ ramis plus minus pubescentibus + pilosis prostratis, rarissime ~~adscendens~~ suberectis; stipulis subulatis distinctis, ~~nudis~~ ciliatis; foliis ~~lineari-oblongis~~ e basi valde obliqua obtusa oblongo-linearibus subfalcatis, versus apicem obtusiusculum serrulatis, pilosis s. nudiusculis pedunculis petiolos aequantibus, ~~pseudoaxillaribus~~, ad glomerulos laterales congestis; ~~appendicibus~~ glandulis involucri ~~plus minus~~ (petaloideo magno) brevi integro s. plerumque crenato instructis; s. nudis; capsula puberula, acute angulata; seminibus ~~oblongo-linearibus~~ ovatis, acute 4 angulatis, transversim foveolatis, e cinereo rubellis, +

United States ~~to~~ Texas ~~at~~ roadsides on fields etc very common. not seen west! β. from Sandy sea islands S. Carol (Curtis) Fl. from May to Octob. — ♁ Much depressed; suberect only in some specimens from western Texas, forming patches of 6 to 12 or 18 inches in diameter.

+ β. nudiuscula, caule capsulisque parce puberulis, foliis parce serrulatis supra laete viridibus ~~glabris~~ nudis, subtus ~~vix~~ pilosiusculis;

Leaves ~~4–6 (mostly 4–5~~ 4–5 or 6 l. long, 1½ to 2½ rarely 3 l. wide; frequently with a brown-red lanceolate spot in the middle, mostly glabrous above and hairy beneath, stipules in all my specim. entire with long ciliae. Petaloid appendages mostly reddish, often hardly visible. Styles almost as long as ovary, bilobed at the apex or down to the middle; the eastern specimens before me (N. York and Pennsylvania) have shorter less lobed styles; — Seeds 0.4 l. long, with (~~strong~~ about 4 transverse grooves on the concave sides), and entire angles. — Specimens from the banks of the Ohio have broader ~~leaves~~ with darker spots; seed a little larger, 0,45 l. long

♁ Syn. E. depressa Torr! E. thymifolia Pursh. (num Lin?)

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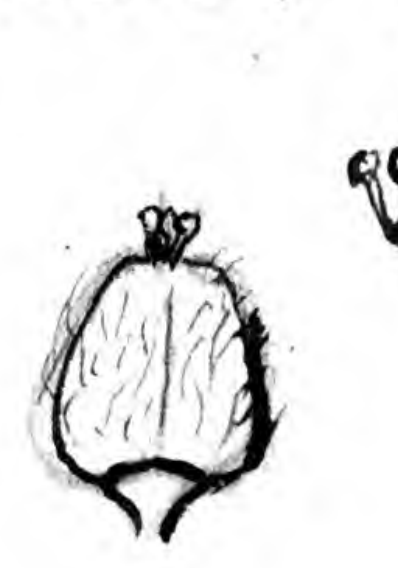
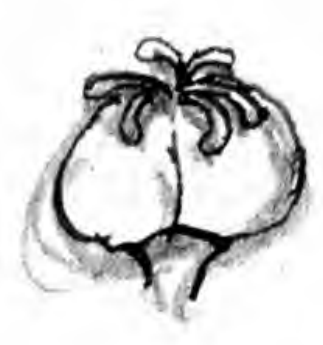
24. *Euphorbia intermedia* n. sp. annua, ~~caule~~ ramis pubescentibus prostratis; stipulis subulatis ciliatis; foliis a basi ~~valde~~ obliqua obtusa s. subcordata oblongo-ovatis, obtusis s. acutiusculis acute serratis & infra ~~pilosis~~ densius supra ~~medio~~ vix pilosis; pedunculis petiolos aequantibus in glomerulos laterales congestis; glandulis involucri margine petaloideo integro s. emarginato instructis; capsula puberula acutiuscule angulata; seminibus ~~oblongis~~ ovatis, acute 4 angulatis ~~foveolatis~~ rugosis exsculptis punctatisque, cinereo-rubellis.

Santa Fe, July (Fendl. 797), & on the Pawnee fork, (western Prairies) in Sept. (Fendl 798). — A singular species, which may possibly have to be referred to some other, (perhaps oblongifolia?) but nevertheless has many distinguishing characters — or is it the western representative of E. maculata, which ~~has~~ never been found — so far as I know much west of the settlements — Both forms collected by Mr Fendler show at first sight a considerable difference. The leaves of the specimens from the Pawnee fork are almost twice as large, (3½–4½ l. long ½–2½ l. wide) more elongated and somewhat acute — the whole plant looks stouter; but the seeds are identical, (with concave irregularly ~~st~~ transversely) rugose, and punctate sides, and acute angles, between 0,5 & 0,6 l. long. The leaves of the Santa Fe specimens are broadly oval, obtuse 2–3 l. long 1–2¾ l. wide. — Styles in both very much shorter than ovary, and undivided, with a small capitate stigma.



26 ~~25~~. *Euphorbia deltoidea* n. sp. perennis, piloso pubescens, adscendens; stipulis subulatis setaceo fimbriatis s. fissis; foliis a basi maxime obliqua subcordata ovato-triangularibus & subacutis ~~acuminato~~-serratis, utrinque pilosis; pedunculis petiolos superantibus, pseudo axillaribus, demum ~~fasciculatis~~ in glomerulos laterales congestis; glandulis involucri petaloideo-marginatis; capsula pilosa acute angulata; seminibus ovatis, acutis, acute 4-angulatis, rugoso-tuberculatis, rubellis.

Cerralbo (between the Rio Grande & Monterey, May

Dr Gregg. — Many ascending stems about 6 inches high from a stout perennial ligneous root; below with very small, above with larger very oblique, quite hairy, leaves sometimes ~~slightly spotted leaves~~, with a brown spot in the centre; mostly 3–4 l. long and 2–2½ l. wide at base; ~~ovaries white villous~~; styles shorter ~~than~~ the white villous ovaries, bifid ~~divided~~ almost to the base. Seeds with sharp angles and  concave sides a little more ~~l. long~~ than 0.5 long.

~~26~~ 25. Euphorbia **ovalifolia** n. sp. annua plus minus piloso-pubescens, prostrata s. adscendens, stipulis lateris superioris (s. anterioris) plerumque distinctis lanceolatis, subulatis, lateris inferioris posterioris connatis, triangulatis, omnibus fimbriatis s. laciniatis; foliis e basi obtusa saepius subcordata, s. ovato-orbiculatis elliptico-ovalibus, obtusis vel serratis; ~~supra pilosis s. glabris~~ pedunculis petiolos superantibus, ~~pseudoaxillaribus densis~~ in glomerulos laterales congestis; glandulis involucri pilosi anguste petaloideo marginatis s. nudis; capsula pilosa acute angulata; seminibus ovatis acute 4angulis prominenter transverse rugosis. —

β. glabrior, ramis adscendentibus, s. erectiusculis ~~bifariam~~ pilosis, foliis ellipticis supra nudis, subtus vix pilosis.

γ. canescens prostrata, ~~foliis~~ sub ~~cordato~~ tota piloso-canescens, foliis sub-cordato-~~orbiculatis~~. (Dr Hale sub E. rotundifolia = HG Short)

From the Red River, La, ~~through~~ the whole of Texas; Lindheimer. 165. 108. β. on rocky soil near New Braunfels; γ. on granite rocks on the Llano. — June – Octob. — The common form is prostrate often more than a foot in diameter, leaves 2–4 l. long ½–2 l. wide; β. is 6–8 inches high, leaves 3–6 l. long 2–3 l. wide; ~~Many~~ specimens of γ. are only 3–4 inches in diameter, leaves 2–3 l. long 1½–2½ l. wide. — Styles much shorter ~~than~~ the villous or hairy ovary, deeply bifid; seed 0.5 l. long, with sharp, crenate angles, and very sharp transverse wrinkles, much sharper than in any other species known to me —

β. fusco-atris.

27. Euphorbia hypericifolia Lin annua, caule erecto, ~~ascendente~~ patulo s. subdecumbente, ~~[illegible]~~ bifariam puberulo s. glabro; stipulis anterioribus plerumque distinctis, posterioribus lanceolatis connatis ovato-triangulatis, fimbriatis; foliis e basi obliqua obtusa s. subcordata ovato oblongis s. oblongo linearibus, rarius angustatis falcatis, omnibus obtusis ~~[illegible]~~, acute serratis, subtus glabris supra sparse pilosis ~~nudis~~; pedunculis petiolum ~~superantibus~~ ~~in dichotomia ramulorum~~ ~~singulis~~, ~~densa~~ plerumque ad ramulorum alternantium apicem ~~[illegible]~~ ~~[illegible]~~ in cymas laxas foliosas congestis; appendicibus involucri orbiculatis integris plerumque parvis, rarius s. subnullis; capsula glabra ~~acute~~ obtuse angulata, seminibus ovatis obtusius angulatis, transversim rugoso-tuberculatis.

α. erecta ~~erecta~~ s. patula, foliis oblongo-ovatis s. elongatis, minus obliquis, corymbis foliosis, dichotomis, laxis.

β. procumbens, s. adscendens, foliis basi valde obliquis, versus apicem angustatis, falcatis; corymbis ut supra.

~~γ. corymbifera cymosa erecta, glabra foliis oblongis attenuatis, ramis alternis subaphyllis foliis brevioribus apice corymbos densos gerentibus.~~

~~Atlantic~~ States to Missouri, and south to Texas and Mexico — A common ~~weed~~ in cultivated soil, on river-banks, naked places in Prairies etc. — Fl. from May to October. — ~~Stem~~ 1–2 feet high, or decumbent, spreading, ~~often~~ 2 feet in diameter; naked, only upper part and branches mostly pubescent in two lines; rarely entirely ~~smooth~~ glabrous. ~~Leaves~~ variable from broadly oval to oblong-linear, ~~mostly~~ 9 to 18 l. long and 3–6 or 8 l. wide; sometimes the lower half of the leaf is larger, more produced and ~~strongly~~ deeply serrate ~~and gives the~~ when the leaf assumes a falcate appearance. (The leaves have frequently red spots in the centre or red margins.) — The involucral glands have mostly small or larger white or red ~~mostly~~ more or less orbicular petaloid appendages; only in some specimens from St Louis have I found them wanting or very minute. — Styles generally longer than ovary and bifid to the middle. Capsules always glabrous, with ~~only in var. γ I find them as long or a little shorter~~.

obtusish ~~acute~~ angles; ~~seeds~~ black! ~~ovate obtuse thick~~ rather, with obtuse angles and convex sides; between 0.5 and 0.6 l. long; some specimens from Texas have a little larger seeds, even above 0.6. — ~~The seeds of y. cymulifera are hardly 0.4 long, and reddish, more regularly transversely rugose — probably a distinct species.~~

19. ~~E.~~ Euphorbia densiflora ~~cymulifera~~ n. sp. annua, glabra, erecta, ~~foliis~~ stipulis connatis lanceolatis s. triangulatis, subintegris ~~ciliolatis~~; foliis e basi obliqua obtusa oblongis, acutiusculis, acute serratis; pedunculis petiolum superantibus, ad ramulorum alternantium apicem in cymulas densas subaphyllas basi foliis oppositis suffultis seu congestis; appendicibus involucri orbiculatis integris; capsula glabra obtuse angulata; seminibus ovatis obtuse angulatis transverse rugulosis, rubellis. —

Florida, Chapman. — ~~The specimen before me. They mean~~ The specimen before me is almost two feet high, leaves 12 – 18 l. long, 4 – 6 l. wide; Inflorescence remarkable. The dense almost glomerate cymes terminate the naked pseudo-axillary alternate ~~branches~~ (which appear almost like common peduncles, ~~and are shorter than the leaf;~~ 1/4 to 1 inch long). The ~~inflorescence~~ Cymes are 3 – 6 lines in diameter, and frequently subtended by a single pair of small leaves. — Styles as long as the ovary ~~capsule~~, bifid to the middle; capsule about 0.5 long, seeds belong to the smallest of the genus, hardly 0.4 long, reddish, ovate, with obtuse angles and transverse wrinkles. — Very near E. hypericifolia but distinguished ~~by the~~ entire stipules, the inflorescence and the very small capsules and pale seeds. —

19

~~[illegible]~~ mucronous seeds

The stipulate Euphorbiae are distinguished by their ~~opposite~~ one sided growth (secundus) Most of them are prostrate, but even the erect ones are one sided; The stem or branches are smooth or hairy, in the latter case, the pubescence is frequently in two lines, which run down from between the pairs of leaves.

✱ see pg. 22 The leaves are always opposite, always on short petioles, ~~always~~ more or less oblique; the lower half of the leaf is ~~always~~ larger, sometimes produced and even auricled at base ~~the~~ upper half is smaller, mostly acute at base; the whole shape of the leaf is in that way often ~~[illegible]~~ more or less falcate. In narrow or linear leaves (which are acute at base) the obliquity is less conspicuous than in broader ones. The leaves of each pair are equal; never is one larger than the other The leaves are often glaucous, always paler beneath, often with red spots in the centre, or red margins, or red on the lower surface. — They are entire, irregularly crenate or more or less acutely serrate, less on the upper than on the lower ~~border~~ ~~edge~~ ~~half~~, often only toward the point, rarely only at the base of the lower edge (E. Peplis). They are ~~singularly~~ reticulate in their substance +. — We find them glabrous, hairy, strigose, pubescent or canescent; sometimes we find hairs only on the lower (E. maculata, Fendleri) & ~~other~~ in rare instances only on the upper surface (E. hypericifolia). — The leaves are mostly small, a few lines long, rarely larger.

Stipules are always found at the base of the petiole between each pair of leaves; they are either distinct or those on ~~one~~ the same side of the branch are connate; we find ~~mostly~~ often the stipules on the lower or posterior side connate, while those on the upper or anterior side of the branches are distinct, (E. hypericifolia) ~~in~~ other cases the stipules of the anterior side are broader, more entire, while those of the posterior side are narrower and more divided. (E. Geyeri) The stipules are entire or ciliate, fimbriate, setaceously incised, or separated into many bristles (E. cordifolia). The stipules are ~~always more or less~~ membranaceous, (never herbaceous) and mostly more or less caducous. Sometimes they are large and very conspicuous (E. stipulata) and again we find them reduced to small warts or points (E. brevistipula.)

The pedicncles are mostly short, longer or shorter than the petiole, They are always terminal, ~~originally~~ ~~in the~~ at first mostly between two lateral gradually much enlarged branches. These branches ~~either~~ have an equal developement, (E. polygonifolia) and then the plant becomes regularly and equally dichotomous. Or they have an unequal developement, ~~the alternate~~ one becomes larger, and the other remains small, and so on alternately; in this case the stouter branch becomes the continuation of the stem, while the ~~stunted~~ one ~~takes~~ assumes the appearance of a lateral branch; and these lateral branches are always alternating, and bear the inflorescences. This inflorescence is either more or less equally dichotomous (or cymose, as we ~~name~~ it here) ~~or it is~~ (E. hypericifolia, gracillima etc; or — and that is the usual case — it follows the same laws; one branch is always more developed than the opposite one, this smaller branch finally disappears entirely; in that way the inflorescence is formed which we have ~~called~~ named here lateral glomeruli (E. herniarioides, maculata etc) Very rarely one lateral branch is not developed at all we have then the appearance ~~of an erect stem, with few branches~~ of single, alternating, pseudoaxillary ~~flowers~~ involucres (E. rupifraga).

The involucres are ~~small~~, mostly turbinate in E. gracillima they are campanulate and in some ~~mexican~~ species (E. Greggii, stipulata ~~& Mexic~~ ~~also~~ ~~the texan E. gracillima~~) hemispherical, They are 5 lobed, the lobes obtuse or acute, or subulate, entire or mostly fimbriate. In four interstices between the lobes we find stipitate, orbiculate or mostly transverse elliptical glands. In the fifth interstice, on the posterior or lower side, there is no gland; ~~and~~ ~~on~~ in this interstice rests the pedicel of the ~~flower~~ fruit, which after flowering becomes recurved towards the posterior side. In one instance (E. humistrata) this ~~fifth~~ interstice is deeply incised, making the involucre almost spathaceous.

The glands are rarely entirely naked (E. polyg

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folia); they are mostly margined or rather subtended by a petaloid appendage. This appendage, is large and conspicuous, and orbicular (E. cordifolia, stipulata) or oval and even acute (E. gracillima) and in these instances entire, or it is a ~~small~~ narrow more or less bilobed or crenate margin (E. maculata etc); it is mostly white, or reddish (often in the same species) or ~~yel~~ yellowish green; In some species it is ~~rather~~ distinct in some forms, while in others it almost entirely disappears (E. herniarioides, hypericifolia etc). —

‡ The 3 styles are very rarely simple; in E. Greggii they bear each a large, somewhat peltate, ~~stigma~~, in E. intermedia a small capitate stigma. They are mostly ~~divided, and~~ bilobed or bifid, bearing 6 more or less filiform or cylindric or somewhat clavate stigmata. They are longer ~~or~~ mostly shorter than the ovary, often very short, and bifid only at the ~~apex~~ apex ~~only~~ or to the middle or almost ~~to~~ the base.

The capsule is acutely or obtusely angled;

‡ The ~~calyx of~~ the pistillate flower is mostly an inconspicuous margin; only in E. Peplis I find it consisting of 3 linear truncate lobes, corresponding with the 3 cocci of the fruit.

The seeds are ~~almost globose~~ destitute of the caruncula, but covered by a thin arillus? which becomes glutinous when moist; They are all of a ~~whit~~ pale colour, white, or pale gray or cinereous or reddish gray; one species only (E. hypericifolia) has dark, almost black seeds. — ~~One species~~

— Their shape is in one instance (E. gracillima) almost orbicular, but mostly more or less ovate or oblong, or oblong linear, more or less pointed upwards, and rounded or truncate below. — They are more or less terete or with one dorsal carina, or with three (dorsal and 2 lateral) angles obtuse or acutish, or finally 4 angled when the 3 just mentioned angles are acute, and the 4th or ventral angles always more or less obtuse. — The sides are

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convex or flat or concave. — The surface of the seed is smooth and even (E. polygonifolia, Peplis) or more or less uneven, ~~having~~ ~~either~~ ~~&~~ In this latter case it is either sprinkled with fine grains or tubercules, ~~as if powdered~~ (E. humistrata) or it is covered with tubercles, which are more or less connected into irregular wrinkles (E. hypericifolia, Chamaesyce) or with transverse acute wrinkles (E. ovalifolia); or it is impressed-~~dotted~~ (E. notata) or transversely grooved or foveolate (E. maculata). In this latter case the angles are mostly entire or the grooves extend over to them, giving them a crenate appearance (E. unilatera, Greggii).

I find the cotyledons always shorter than the radicle and mostly oblong ~~and of the same~~ and hardly broader; only in E. hypericifolia they are almost orbicular ~~and~~ nearly twice the diameter of the radicle. ♂

Octob. 1848

* (see pag 19) They are mostly annual, both europ. and all the species of the old U. States are so, but in Texas, New Mexico and ~~in~~ the old mexican Provinces we find also some perennial species, mostly with very stout ligneous roots. — I am not acquainted with any shrubby species which might belong here. —

♂ All the characters, by which they might be ~~sub~~divided appear to give artificial results, even the character taken from the seeds; still this appeared to be the best and has been adopted, though it separates for example E. stipulata from E. Greggii, E. revoluta from E. gracillima, etc; The character taken from the serrature of the leaves is still less important, as we find some species occurring with almost entire or crenate or serrate leaves (in E. longipila, E. humistrata, & ~~as~~ both ~~european~~ species, E. Peplis & E. Chamaesyce); the pubescence or nakedness had also to be adopted for subdivisions, though we find at least one species (E. Chamaesyce) ~~with~~ entirely naked or hairy or canescent, and though thereby some very nearly related species ~~are~~ become widely separated ~~by this~~ (E. hypericifolia and cyanulifera, E. maculata and unilatera, E. Chapmani & humistrata). — Perhaps the best base

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~~Synopsis of the Euphorbiae stipulatae~~

for subdivision would be obtained by the different developments of the inflorescence, but the characters of that are too uniform to be of much practical value. Such a division would perhaps be the following.

I. Ramis aequalibus ~~dichotomis~~ oppositis, inflorescentia dichotoma.

Euph. Polygonifolia — E. revoluta — E. saxicola.

II. Ramis inaequalibus oppositis s. alternantibus.

× inflorescentia regulariter dichotoma

E. hypericifolia — E. cymulifera

×× inflorescentia inaequaliter dichotoma, laxa

E. gracillima — E. Geyeri — E. cordifolia — E. Peplis — E. Greggii

E. longipila.

××× inflorescentia glomerulos laterales laxos, foliosos, ~~laterales~~ formante

E. herniarioides — E. stipulata — E. Fendleri — E. Chapmani

×××× inflorescentia glomerulos laterales compactiores, minus foliosos s. subaphyllos ~~laterales~~ formante.

E. cinerascens — E. notata — E. unilateralis — E. angusta — E. humistrata — E. chamaesyce — E. maculata — E. deltoidea E. ovalifolia.

××××× floribus singulis pseudo axillaribus

E. cinerea — E. rupifraga.

But here also natural affinities are disregarded as E. polygonifolia and E. Peplis, E. cinerascens and cinerea and others. —

All characters ~~taken~~ and affinities taken together and duly weighed the following ~~might~~ be considered a tolerably natural arrangement, though it certainly leaves a great deal to desire.

1. E. hypericifolia — E. cymulifera — E. gracillima — E. revoluta —
2. E. angusta — E. unilateralis — E. maculata — E. deltoidea — E. intermedia — E. ovalifolia — E. notata —
3. E. humistrata — E. Chapmani — E. longipila —
4. E. Chamaesyce — E. Fendleri —
5. E. Peplis — E. Polygonifolia —

6. E. Geyeri — E. cordifolia — E. herniarioides
7. E. stipulata — E. Greggii — E. saxicola —
8. E. cinerascens — E. cinerea — E. rupifraga.

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Synopsis of the stipulate Euphorbiae

* Semina laevia, pallida

† folia integra, glaberrima.

1. Euphorbia gracillima mihi. annua, erecto-patula; foliis e basi acuta linearibus, involucris ovato-appendiculatis longe pedunculatis ad apicem ramulorum alternantium laxe cymosis; seminibus subglobosis.

2. E. polygonifolia L. annua patula s. prostrata; foliis e basi obliqua subcordata s. obtusa oblongo-linearibus; involucris exappendiculatis ~~in ramulis~~ oppositorum aequalium dichotomia ~~[illegible]~~ breviter pedunculatis; seminibus ovatis, obtusangulis, ~~acutis~~.

3 E. Geyeri E. annua, erecto-patula s. procumbens; stipulis multifidis foliis oblongo-linearibus s. ovato-oblongis; involucris plus minus orbiculato- ~~cordato-~~ appendiculatis, ad apicem ramulorum alternantium ~~laxe~~ cymosis, seminibus ovatis, obtus-angulis, ~~acutis~~.

α. florida, erecto patula, foliis angustioribus, appendicibus majoribus; seminibus majoribus.

β. inconspicua, procumbens, foliis brevioribus, appendicibus minoribus; seminibus majoribus.

γ. microsperma procumbens, foliis latioribus, appendicibus seminibusque minoribus

4. E. cordifolia Ell annua prostrata, stipulis multifidis, foliis cordatis, orbiculato-ovatis, involucris orbiculato appendiculatis longius pedunculatis, in dichotomiis ramulorum inaequalium ~~singulis~~; seminibus ovatis obtuse angulatis, acutis.

5. E. herniarioides Nutt. annua, prostrata, stipulis subconnatis, foliis ~~acuto~~-orbiculatis, ovatis, involucris breviter appendiculatis s. nudis demum lateraliter laxe glomeratis; seminibus ovatis, obtuse angulatis ~~acutis obtusiusculis~~

6. E. stipulata n. sp. perennis, procumbens, stipulis connatis, foliis orbiculato-ovatis, involucris ~~[illegible]~~ late appendiculatis, demum lateraliter laxe glomeratis; seminibus oblongolinearibus, acute 4 angulatis, ~~obtusiusculis~~

[pag. 28. contin.] foliosorum ~~laxe~~ cymosis, seminibus ovatis, obtusius angulatis transversim tuberculato-rugosis
pag.

α. erecta foliis aequilatis

β. procumbens, ~~foliis~~ s. adscendens, foliis versus apicem angustatis, falcatis.

++ folia plus minus serrata s. crenata

§. caulis glaberrimus

7. E. Peplis L. annua, procumbens, foliis ovatis, subfalcatis, latere inferiore subdentatis; involucris sub-nudis in dichotomia ramulorum inaequalium singulis; seminibus ovatis obtusangulatis ~~acutiusculis~~

§§. caulis pilosus.

8. E. Fendleri n. sp. annua, prostrata, caule patentim piloso, foliis ovato-oblongis, ~~acute~~ serratis, involucris minute appendiculatis, lateraliter glomeratis; seminibus ovatis acute 4-angulatis, ~~acutiusculis~~

**. Semina tuberculata, rugosa s. exsculpta (omnia excepta speciei ultima, pallida)

† folia integra

§ ~~caulis~~ glaberrimae

9. E. revoluta n. sp. annua, erecto-patula; foliis e basi acuta linearibus, revolutis; involucris vix appendiculatis, in dichotomia ramulorum aequalium singulis; seminibus oblongo-linearibus, acute 4-angulatis, transversim foveolato-rugosis.

10. E. saxicola n. sp. perennis, erecto patula s. diffusa; foliis e basi lata ~~lanceolatis s.~~ ovato triangulatis (rare lanceolatis); involucris sub exappendiculatis in dichotomia ramulorum sub aequalium ~~singulis~~ ~~breviter pedunculatis~~; seminibus ovatis, 4 angulis, transverse foveolato-rugosis punctatisque

α. texensis, foliis latioribus, seminibus subcubicis

β. neo-mexicana foliis angustioribus seminibus angustioribus

11. E. Greggii n. sp. perennis erecto-patula, stipulis connatis, truncatis, foliis reniformibus; involucris hemisphaericis late appendiculatis in dichotomia ramulorum inaequalium singulis (stigmatibus orbiculatis indivisis); seminibus linearibus, acute 4-angulis, transverse foveolato-rugosis, angulis crenatis

§§. canescentes

12 E. cinerascens n. sp. perennis, procumbens; foliis triangularibus s. ovatis, subtus cinereo-pubescentibus; involucris sub appendiculatis ~~in glomerulos~~ lateraliter ~~laxe~~ glomeratis seminibus ovatis, angustatis acute 4 angulatis, leviter impresso-punctatis

13. E. cinerea n. sp. perennis, erecto patula, foliis triangulatis et falcato-linearibus, revolutis, supra subtusque cinereo-

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pubescentibus; involucris vix appendiculatis, pseudoaxillaribus, singulis; seminibus ovatis angulatis acute 4 angulatis, leviter tuberculatis.

14. E. rupifraga n. sp. perennis erecta, foliis linearibus, strigoso-pubescentibus demum supra glabratis; involucris crenato-appendiculatis, pseudoaxillaribus, singulis: seminibus ovato-sub-orbicularis, acute angulatis, transverse rugoso-foveolatis.

†† folia crenata s. serrata

§. Glaberrimae

15. E. Chapmani n. sp. (annua (?)), prostrata; stipulis connatis, foliis basi acutis orbiculato-obovatis, crenatis; involucris breviter appendiculatis demum lateraliter laxe glomeratis; seminibus ovatis, 4-angulatis, leviter saccharato-verrucosis, rugosis.

16. E. notata n. sp. annua, prostrata; foliis oblongo-obovatis, acute serratis; involucris breviter appendiculatis demum lateraliter ~~laxe~~ glomeratis; seminibus lineari-oblongis, 4 angulatis, punctato-exsculptis.

17. E. unilatera annua, prostrata; foliis oblongis s. lineari-oblongis, ~~basi et~~ apice crenato-serrulato et basi obtusis; involucris breviter appendiculatis, demum lateraliter glomeratis; seminibus acute 4-angulatis transverse foveolato rugosis; angulis crenatis.

18. E. angusta annua erecto-patula s. sub-decumbens, foliis oblongo linearibus s. linearibus, versus apicem acute serratis; involucris breviter appendiculatis, demum lateraliter glomeratis; seminibus lineari-oblongis, acute 4 angulatis, transverse ~~foveolato~~-rugosis et punctato foveolatis.

19 E. densiflora ~~cymulifera~~ annua erecta, stipulis connatis; foliis oblongis, acutiusculis, ~~acute~~ serratis; involucris orbiculato-appendiculatis, ad ramulorum alternantium apicem in cymulas densas subaphyllas congestis; seminibus ovatis obtuse angulatis transverse rugulosis

§§. Pilosae s. pubescentes

a. Semina saccharato verruculosa

20. E. longipila n. sp. annua patentim pilosa, erecto-patula

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foliis e basi subcordata ovato-triangularibus, obleviter crenulatis s. subintegris; involucris orbiculato- s. ovato- appendiculatis, demum ad apicem ramulorum alternantium laxe cymulosis; seminibus ovatis, angulatis, verruculosis et levissime rugulosis.

21 E. humistrata n. sp. annua caule prostrato, ~~bilineato~~ bifariam -pubescente; foliis basi obtusa elliptico oblongis, apice serrulatis s. subintegris, subtus parce pilosis; involucris breviter appendiculatis demum lateraliter glomeratis; seminibus ovatis angulatis, saccharato verruculosis

b. Semina transverse rugosa s. foveolata

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α. pallida

22. E. Chamaesyce L. annua canescens, pilosa s. glabra, prostrata; foliis orbiculato-ovatis subintegris leviter crenatis s. serratis; involucris breviter appendiculatis demum lateraliter glomeratis; seminibus ovatis angulatis, tuberculato-rugosis

23. E. maculata L. annua, piloso-pubescens, prostrata; foliis lineari-oblongis subfalcatis, obtusis versus apicem serrulatis; involucris breviter ~~sub~~-appendiculatis s. nudis ~~demum~~ lateraliter glomeratis; seminibus ovatis, acute 4 angulatis, transversim foveolatis.

β. nudiuscula foliis denudatis, laete virentibus.

24 E. intermedia n. sp. annua, piloso-pubescens, prostrata; foliis oblongo-ovatis, obtusiusculis acute serratis; involucris breviter appendiculatis lateraliter glomeratis, stigmatibus capitellatis indivisis; seminibus ovatis, acute 4 angulatis, rugosis exsculptis punctatisque.

26 E. deltoidea n. sp. perennis, piloso-pubescens, adscendens; foliis e basi valde obliqua ovato-triangulatis, subacutis, crenato-serratis; involucris appendiculatis pseudoaxillaribus, demum lateraliter glomeratis; seminibus ovatis, acute 4 angulatis rugoso-tuberculatis.

25. E. ovalifolia n. sp. annua, piloso-pubescens (s. canescens, s. nudiuscula), prostrata s. adscendens, stipulis lateris posterioris connatis; foliis elliptico ovalibus obtusis serrulatis; involucris breviter appendiculatis s. nudis, lateraliter glomeratis; seminibus ovatis, acute 4-angulatis acute transverse rugosis

β. glabrior, adscendens

γ. canescens prostrata

β. fusco-atra

27. E. hypericifolia ~~Lin~~ annua caule erecto-patulo s. subdecumbente, bifariam puberulo s. subnudo; stipulis posterioribus connatis; foliis ovato-oblongis s. oblongo-linearibus s. falcatis angustatis obtusis ~~acute~~ serratis, supra parce pilosis; involucris plus minus appendiculatis s. sub nudis, ad apicem ramulorum alternantium vide pag 25.

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Review of the species above enumerated.

The following are very distinct species, and can not be confounded with any other one

1. E. gracillima
2. E. polygonifolia
3. E. Geyeri
4 E. cordifolia } these two have some faint resemblance, especially in the seed and also through E. Geyeri. g. but can not be confounded
5. E. herniarioides resembles somewhat the last, but can not be confounded.
6. E. stipulata. The smaller varieties resembles slightly the last but the large hemispherical involucrum etc always distinguishes it.
7. E. Peplis
8. E. Fendleri
9. E. revoluta has some resemblance with 18 angusta, but is readily distinguished
10. E. saxicola
11. E. Greggii
12. E. cinerascens } seeds very similar, but much larger in 13, besides that the revolute
13. E. cinerea } leaves and the stout erect branches of the latter distinguish it. —
14. E. rupifraga
20 E. longipila
22. E. Chamaesyce
26. E. deltoidea

15. E. Chapmanii might possibly be considered as a form of 21. E. humistrata, but it is not only distinguished by the more slender stems, thinner, membranaceous leaves, connate stipules, but also by the leaves being more or less acute and not obtuse or subcordate base of leaves. Seeds very similar.

16. E. notata 17. [illegible] and even 18. angusta may safely be considered as subspecies of 23. E. maculata. I shall give below a full arrangement of the exposition as I would arrange it. —

19. E. densiflora and 27. E. hypericifolia are also perhaps too nearly related, they appear to be well distinguished however, by the shape of the inflorescence and the colour and size of the seeds. It might be possible however to discover intermediate forms. So far I must consider the two species as distinct. —

Euphorbia maculata L. annua, stipulis distinctis, foliis obovatis, ovatis, oblongo-linearibus, linearibusve, versus apicem crenatis serratisve; pedunculis petiolos aequantibus, in dichotomiis ramulorum inaequalium singulis, s. plerumque in glomerulos laterales plus minus densos congestis; appendiculis involucri brevibus, integris, s. plerumque lobatis crenatisve rarius vix ullis; capsula acute angulata, seminibus ovatis ~~s. oblongis s.~~ s. magis elongatis, acute angulatis, transverse foveolatis ~~s. punctatis~~.

I genuina, ramulis plus minus piloso-pubescentibus, prostratis, stipulis subulatis, ciliatis; foliis oblongis s. lineari-oblongis, subfalcatis; crenatis s. serrulatis, pilosis s. nudiusculis; involucris axillis glomerulis, stylis ovario aequantibus; capsula plus minus pilosa, seminibus oblongis minutis, transverse foveolatis

β. nudiuscula caule capsulisque parce puberulis, foliis ~~parce~~ serrulatis subnudis.

United States to Texas, etc vide pag 14. —

II. glaberrima. prostrata s. erecta, stipulis plerumque setaceo-fimbriatis s. fissis; foliis obovatis, ovatis s. angustioribus, linearibus; crenato serrulatis s. acute serratis; ~~seminibus~~ involucris plerumque laxius glomeratis, stylis ovario aequantibus s. multo brevioribus; seminibus ovatis angulatis, majoribus, ~~transversis~~ foveolato-rugosis, punctatisve.

α. notata prostrata, stipulis setaceo-fimbriatis, foliis obovato-oblongis, basi ~~[illegible]~~ valde obliqua acutiusculis s. obtusis, acute serratis; stylis ovarium aequantibus; seminibus punctato exsculptis.

β. concolor. prostrata, stipulis fimbriatis s. fissis, foliis oblongis s. lineari-~~oblongis~~ ~~f. basi valde inaequali~~ oblongis s. lineari oblongis, basi valde inaequali et apice crenato-serrulato obtusis; (stylis ovario multo brevioribus) seminibus minoribus ovatis ~~transverse~~ foveolato-rugosis, angulis crenatis.

γ. angusta erecto-patula, rarius ~~sub~~ procumbens; stipulis subulato-setaceis integris s. fimbriatis; foliis e basi obliqua obtusa s. acutiuscula oblongo-linearibus linearibusve, obtusis s. acutis, versus apicem acute serratis; stylis ovario multo brevioribus; seminibus majoribus transverse rugulosis s. foveolato-punctatis. —

The glabrous forms of this protean species occur all in the western deserts, to New Mexico, where the pubescent

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forms have not yet been discovered! In western Texas (on the Llano) both appear to ~~grow~~ together. — Var α has been found on sandy banks of streamlets and on the Rio Grande near Santa Fe, vide pag 10. — Var β. has been brought by Geyer from the upper Missouri, near Fort Pierre, vide pag 11. and by Lindheimer from Western Texas vide pag 11. — Var γ has also been found by Geyer in the same neighborhood, and by Fendler (791 & 803) in New Mexico vide pag 11 & 12. —

The arrangement of Euphorbia has to be altered after this, as the pubescence was not come into consideration, (nor the serrature, properly speaking — still this may be retained.)

We may arrange them them in the following manner definitely:

Before I proceed I have to speak also of 24. E. intermedia. It is certainly too near either E. maculata or. E. ovalifolia, and the specimens from the Pawneeforks I would feel inclined to unite with the first, and those from Santa Fe with the latter, if not the styles would form a remarkable character. And as long as I have not satisfied myself that a character taken from the styles is of no importance in Euphorbiae, I must continue to consider this as a distinct species.

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Euphorbiae stipulatae (Octob 21st 1848)

* semina laevia

† folia integra

1. E. gracillima   2. E. polygonifolia   3. E. Geyeri
4. E. cordifolia   5. E. herniarioides   6. E. stipulata

††. folia serrata s. crenata.

7. E. Peplis   8. E. Fendleri

**. Semina tuberculata, rugosa s. exsculpta.

† folia integra

9. E. revoluta   10. E. saxicola   11. E. Greggii
12. E. cinerascens   13. E. cinerea   14. E. rupifraga

†† folia crenata s. serrata

§ semina saccharato-verruculosa

15. E. Chapmani   16. E. humistrata   17. E. longipila.

§§. Semina tuberculata

17.b. E. brevistipila

§§§ semina transverse rugosa, foveolata s. punctata.

18 E. Chamaesyce   19. E. maculata (I genuina II. notata, concolor angusta)
20. E. intermedia   21. E. ovalifolia   22 Deltoidea
23. E. densiflora   24. E. hypericifolia.

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Euph. stipulata
glandulis bilabiatis, involucri foliis

E. Chamaesyce
E. sanguinea
E. intermedia
E. Peplis
E. polygonoides
E. thymifolia Forsk ?
E. hirta ?
E convolvuloides
E arabica
E. Deserti

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